

An Apparatus and Method for Optimizing the Efficiency of a Bypass
Diode in Solar Cells

ABSTRACT

5 Apparatus and Method for Optimizing the Efficiency of a Bypass Diode in Solar
Cells. In a preferred embodiment, a layer of TiAu is placed in an etch in a solar cell with a
contact at a doped layer of GaAs. Electric current is conducted through a diode and away
from the main cell by passing through the contact point at the GaAs and traversing a lateral
conduction layer. These means of activating, or "turning on" the diode, and passing the
10 current through the circuit results in greater efficiencies than in prior art devices. The diode
is created during the manufacture of the other layers of the cell and does not require
additional manufacturing.